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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NADAV, ORI

ART UNIT

PAPER NUMBER

2811

DATE MAILED: 07/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Art Unit: 2811

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 28 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification a modified SOG film containing no organic components. There is no support for a first insulating film (i.e. a modified SOG film) containing organic components, as recited in claim 28.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Art Unit: 2811

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 25-33, insofar as in compliance with 35 U.S.C. 112, are rejected under 35 U.S.C. 102(b) as being anticipated by Okumura et al. (4,984,055).

Okumura et al. teach in figure 13D a semiconductor device comprising a semiconductor substrate 1, an interlayer insulating film (ILD) 12 on the substrate, wirings 16 located on the ILD 12 and a passivation layer covering the surface of the ILD and the wirings, including a first insulating film 13 that is a modified SOG containing boron impurities (column 16, line 15), and a second insulating film 14 comprising oxide having a hygroscopicity lower than the first insulating film and being located on at least one of an upper side and lower side of the first insulating film.

Although Okumura et al. do not explicitly state that layers 13 and 15, respectively, are passivation layers, layers 13 and 15 meet the functional limitations of the claims since layers 13 and 15 protect the device.

Regarding the processing limitations ("a modified SOG film formed by implanting boron impurity into an organic/inorganic SOG film"), these would not carry patentable weight in this claim drawn to a structure, because distinct structure is not necessarily produced. Note that a "product by process" claim is directed to the product per se, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also *In re Brown*, 173 USPQ 685; *In re Luck*, 177 USPQ 523; *In re Fessmann*, 180 USPQ 324; *In*

Art Unit: 2811

re Avery, 186 USPQ 161; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); and In re Marosi et al., 218 USPQ 289, all of which make it clear that it is the patentability of the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that the applicant has the burden of proof in such cases, as the above case law makes clear.

Regarding claims 26, 29 and 32, although Okumura et al. do not explicitly state that silicon oxide has a hygroscopicity lower than boron doped SOG, this feature is inherent in Okumura et al.'s device, because it is well known in the art that silicon oxide has a hygroscopicity lower than boron doped SOG, of which judicial notice is taken.

Regarding the processing limitations recited in claim 28 ("organic components decomposed by the boron impurity"), these would not carry patentable weight in this claim drawn to a structure, because distinct structure is not necessarily produced.

Art Unit: 2811

Response to Arguments

5. Applicant argues on pages 3- 4 that Okumura et al. do not teach a passivation film located on the silicide (wiring) layer.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a passivation film located on the silicide (wiring) layer) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Claims 25 and 31 recite a passivation layer covering the surface of the ILD and the wirings. Okumura et al. teach a passivation layer 13, 14 and covering the surface (the top surface) of the ILD 12 and the surface (bottom and side surfaces) of the wirings 16.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2811

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Papers related to this application may be submitted to Technology center (TC) 2800 by facsimile transmission. Papers should be faxed to TC 2800 via the TC 2800 Fax center located in Crystal Plaza 4, room 4-C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Group 2811 Fax Center number is (703) 308-7722 and 308-7724. The Group 2811 Fax Center is to be used only for papers related to Group 2811 applications.

Art Unit: 2811

Any inquiry concerning this communication or any earlier communication from the Examiner should be directed to *Examiner Nadav* whose telephone number is (703) 308-8138. The Examiner is in the Office generally between the hours of 7 AM to 4 PM

(Eastern Standard Time) Monday through Friday.

Any inquiry of a general nature or relating to the status of this application should be directed to the **Technology Center Receptionists** whose telephone number is 308-0956

Tom Thomas
TOM THOMAS
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TECHNOLOGY CENTER 2800

Ori Nadav

July 18, 2002